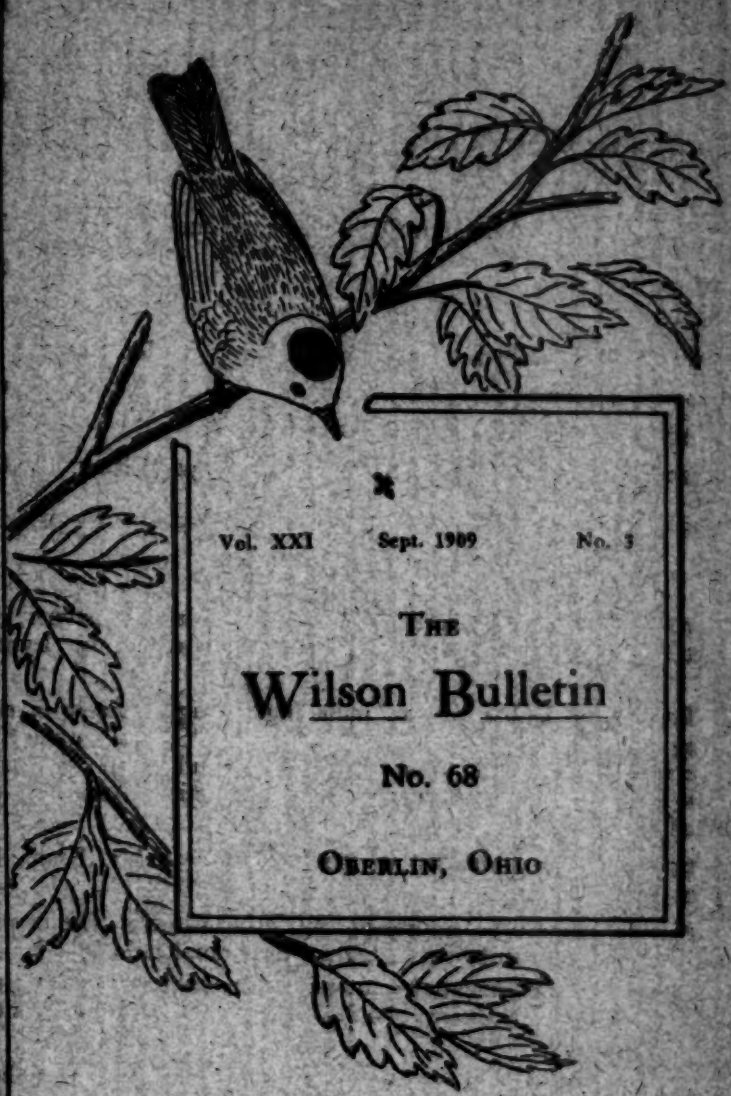

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The Wilson Bulletin

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Oberlin, Ohio

WILSON ORNITHOLOGICAL CLUB

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OLD SERIES VOL. XXI. NEW SERIES VOL. XVI.

THE BIRDS OF CEDAR POINT AND VICINITY.

BY LYNDS JONES.

29. *Marila americana.*—Redhead.

This is not now one of the more common of the ducks, although it may still be properly designated common. There have been regular visitations of small groups, composed of males and females, the latter usually predominating, to the Oberlin Water Works reservoir since its establishment. In the marshes it is usually found in the companies of Baldpates, where it can be readily distinguished by its color pattern. During the period of my studies at Cedar Point I have never seen any large companies of this species. The groups are more often composed of less than twenty individuals than more. The earliest migration date is March 4, 1904, and the latest spring record is April 23; the median spring arrival is March 12, and the usual time of departure is near the middle of April. My only fall record is October 21, 1907, when two were seen.

30. *Marila vallisneria.*—Canvas-back.

My records indicate irregular occurrence, but there are doubtless some individuals among the host of ducks in the marshes each migration season. Judging wholly from my own records I would call this duck uncommon and irregular. From April 13 to 20, 1903, there were four males and one female on the Oberlin Water Works reservoir, and on November 19 and 21 of the same year one visited the same place. Migrations seem to take place at the same time as the Redhead, and the birds seen have usually been members of the company of Baldpates, Redheads, etc. Fishermen and hunters state that this is a fast disappearing species at the marshes.

31. *Marila marila.*—Greater Scaup Duck.

Tolerably common during the earlier part of the migrations in spring, and latter part in fall. The spring migrations occur dur-

ing the second week of March, individuals lingering until the third week of April. I have one record for May 15, 1899. The birds return during the middle of October and linger until winter weather begins, which was December 29, 1902. There have been numerous visitations to the Oberlin Water Works reservoir during the vernal migrations. Groups are more often seen on the open waters of the lake than is the case with the next species, but numbers also feed in the more open areas of the marshes.

32. *Marila affinis.*—Lesser Scaup Duck.

Everything considered this is the most abundant of the ducks. It literally swarms in the marshes during late March and the most of April, where feeding companies cover large areas of the open waters of the marshes. On Mondays, close days, they feed and play and court on a certain large open area near the mouth of Black Channel, apparently possessed of a feeling of security. On open days they are flying wildly about, many seeking refuge on the open lake beyond row-boat range (shooting from power boats is unlawful). Median dates of arrival in spring are March 23, and the bulk do not return before the last of October. Most of the birds have left by the first of May, but I found a flock of upwards of 100 as late as May 22, 1909. A few pairs breed within reach of small bodies of water near Oberlin, and I have some evidence for believing that a few pairs breed in the vicinity of Cedar Point proper. There are always some few wounded individuals about the bay and marshes all summer, but these are not breeding birds. From about the first of May until the third week of May it is a common thing to find numbers of this duck washed up on the bay side of the sand spit dead or dying. Careful examination of the cadavers in a number of instances has failed to reveal any wound or other physical defect. It is possible that death has been caused by lead poisoning, as reported for similar cases elsewhere.

Female Scaup Ducks may be readily identified by the area of white at the base of the bill.

33. *Marila collaris.*—Ring-necked Duck.

The markings of this duck are not sufficiently distinctive at a distance to make identification certain. On April 9, 1900, and April 5 to 12, 1904, one individual visited the Oberlin Water Works reservoir. My other records are May 25, 1903, one at Elyria, on the Black river, March 26, 1904, at Oak Point, March 25, 1907, two at Cedar Point, April 24, 1909, two on a small cemetery pond in Oberlin. I have relied on specimens in hand or at close range for all of these records. It seems probable that the species is more numerous in individuals than these records would indicate.

34. *Clangula clangula americana.*—Golden-eye.

Out of twelve records for this species seven are for the Oberlin Water Works reservoir. There are only three Cedar Point records. No migration dates can be assigned from the records, but there are indications that the spring migration covers the last half of March and most of April, and that the birds return during the last half of November. January 20, 1908, three were recorded at Cedar Point. Hunters mention Golden-eyes or "Whistlers" as occasional ducks in the marshes.

Fig. 7.—A dune controlled by the Prunus virginia Consocies of the Prunus-Rhus Dune Thicket Formation. Note the secondary species. This dune appears in the distance in the left third of Fig. 2 (first paper). It was in the vicinity of this dune that the nest of Piping Plover was found, in the midst of a broad, flat sand waste.

35. *Clangula islandica.*—Barrow's Golden-eye.

There is the skin of a female in the Oberlin College collection which was captured on April 5, 1892, at Lorain, by Mr. Harry Warden. Its presence in the Cedar Point marshes has been strongly suspected, but no specimens have been actually secured.

36. *Charitonetta albeola.*—Buffle-head.

A common migrant, but far less so than formerly. The decrease has been marked since 1904. Until 1904 it was the most regular of the ducks in its visitations to the Oberlin Water Works reservoir, companies of from three to more than twenty remaining there

for several days without showing concern about people all around the embankment. Such companies were always mixed males and females. Early in the season the males usually predominated, but late in April or early in May the females predominated. I have never found them numerous at Cedar Point. On two occasions there was an occasional Buffle-head among the Lesser Scaups washed up on the bay side of the sand spit. Three were seen on every visit to Cedar Point the winter of 1907-8. These ducks are not much hunted and are therefore not at all wary, permitting a close approach.

37. *Harelda hyemalis.*—Old-squaw.

Irregular in its occurrence. Of the seven occurrences since 1896 three have been on the Oberlin Water Works reservoir. On March 11 and 12, 1903, there were two females and one male there, the male in high color. One was shot on a small pond north of Oberlin on April 22, 1907; also a male in high color. The only Cedar Point record is of two birds on November 12, 1906. There were reports of numbers during the winter off Lorain, 1901-2, but my only record for that winter was one at Oak Point, December 23. Lorain fishermen tell tales of these birds being caught in gill nets at a depth of many fathoms. Four specimens in the Oberlin College collection have the remark written on the labels, "Caught in gill net off Lorain."

38. *Oidemia deglandi.*—White-winged Scoter.

The only actual capture of this species at Cedar Point must be accredited to Messrs. F. M. Root and N. Metcalf, May 10, 1908. They report having seen a number of others in the company from which this one was taken. I have been reasonably certain of the presence of this species at Cedar Point and Oak Point, but absence of specimens prevented entering it as certain.

Other records for the eastern parts of the lake shore in the region covered by these studies are: April 27 and May 3, 1892, by H. Warden, Lorain; December 4, 1903, a flock of fourteen at Oak Point, November 19, 1906, a flock of six east of Huron.

39. *Erismatura jamaicensis.*—Ruddy Duck.

Of regular occurrence as a migrant, but clearly decreasing in numbers. Of regular occurrence on the Oberlin Water Works reservoir from 1898 until 1904, since which none have been seen there. The first birds reached the reservoir about April 13, usually remaining a full month. They returned about the middle of October and remained two to four weeks. This duck reaches the marshes near the last of March, leaving May 13, 1907. Like the Buffle-head,early companies contain more males than females, but with late companies the reverse is true. I have seen more Rud-

dys near the shore in the lake than on the marsh side. This is one of the unwary ducks, permitting a near approach, and usually preferring to dive rather than to take wing when too closely pressed.

40. *Chen hyperborea*.—Lesser Snow Goose.

A flock of over sixty was seen at close range on October 29, and another of thirty-eight on November 12, 1906. The first flock was flying inland from off the lake, about a mile west of Huron; the

Fig. 8.—Juniper-capped dunes north of the Lake Laboratory. The blowout has Panicum, Andropogon, Artemisia, Salix interior. Spotted Sandpipers nest in grass bunches in situations like this. Here also are found the Field Sparrows nesting, while many other species of song birds feed and sing all about and over it.

second flock was flying out over the lake half a mile west of Rye Beach. Of course absolute identification was impossible, but the probabilities all favor the supposition that these birds belonged to this species.

41. *Chen caerulescens*.—Blue Goose.

The first to be recorded from this region were captured on the Oberlin Water Works reservoir October 28, 1896. The only other records seem to be a flock of thirty, October 20, and a flock of eighteen, November 12, 1906, west of Huron. There can be little doubt that both this and the last species is of more common occurrence than these records indicate. Gunners bunch all geese to-

gether, so their statements are of no value. More systematic studies in this region would probably result in many more records of these species.

42. *Branta canadensis.*—Canada Goose.

A fairly regular migrant, but hardly common. Flocks ranging up to sixty individuals still are seen occasionally in both migrations. The birds are usually either flying over at considerable height, or are well out on the lake; occasionally one is fortunate enough to find a flock resting on the beach, when with extreme care it may be possible to creep up to close range. I have crept up to within twenty-five yards of small flocks so resting—always on close days. The first spring migrants come in on the first migration wave, with Robins and Bluebirds and Meadowlarks. I have seldom seen more than three flocks in a season, so have not been able to determine the approximate date of departure northward. Fall migrations occur with the first touch of winter.

43. *Olor columbianus.*—Whistling Swan.

My records are confined to the years 1899, when one was brought to the Oberlin College museum on April 3; 1904, March 14, when one paid a short visit to the Oberlin Water Works reservoir, March 21, nine were seen flying over Elyria, March 23, when eleven were seen at Oak Point; 1906, November 12, six, and November 19, thirty-five, at Cedar Point; 1907, March 18, a considerable flock flying south across the west end of Cedar Point; 1908, March 18, a flock at Cedar Point; 1909, March 22, one at Cedar Point. During the week ending on April 3, 1899, a great fall of heavy snow caught the swans in their migrations, and great numbers of them were forced to seek refuge on the ground. Many reports reached the museum that birds had been shot and were being held subject to orders. The only one actually brought in proved to be a fine specimen of a Whistling Swan, all others were declined because the holders were too avaricious. These birds usually fly so high while inland that they are not noticed. On the two rare occasions when flocks were sighted resting on the beach, after the manner of the Geese, I was able to stalk them to within about seventy-five yards. Their bearing on these occasions called out the involuntary exclamation "Kingly birds."

44. *Olor buccinator.*—Trumpeter Swan.

The only capture of this species within the area treated was by Mr. L. M. McCormick on April 20, 1891, at Lorain. It is said that the Trumpeter remains well out in the lake, during the migrations, and is therefore seldom seen. Judging from the records it is of rare occurrence.

45. *Botaurus lentiginosus.*—Bittern.

A common breeder in the marshes. The first arrive near the first of April, more often after than before, and most have gone south by the middle of October (21st, last, 1907). I have never been fortunate enough to find a nest, but if one can judge of the nesting place by the presence of the birds, it is among the rankest vegetation where human progress is made next to impossible by the depth of the muck and the denseness of the brakes and cattails. During the courting season the air is often palpitant with the peculiar mate call. Occasionally one may see three birds rise suddenly from the vegetation in swift chasing flight, and suddenly disappear again into the vegetation. During the migrations individuals are frequently found in any wet place, even in the deep gorges. In early fall they wander into the streams well toward their sources, and fish for frogs in the open borders of the stream. It is on such occasions that they can be studied to advantage, for they are not able to hide themselves in the vegetation.

46. *Ixobrychus exilis.*—Least Bittern.

Tolerably common in the marshes all summer. My records indicate that the migrations occur about the first of May. On April 25, 1904, one remianed perched in a tree on the Oberlin College campus all day, appearing to be exhausted from a long flight. This earlier date may indicate that the actual first wave of migrants passes just before the greatest wave of migration, which usually sweeps through this region during the first week in May. I have never been able to find this bird after the breeding season. While one may always be certain of finding a considerable number of this Bittern in the marshes in summer, it is nowhere as numerous as I have always found it at the Licking Reservoir, near the center of the state. Its nest is skillfully placed among the rushes and reeds about four feet from the surface of the water, with no runway leading down. The birds fly easily and are able to reach the nest without danger of knocking it out.

47. *Ardea herodias.*—Great Blue Heron.

Regular, but hardly common, from about March 20 to October 20. Most records are of single birds seen flying, but occasionally two are seen together, and in the fall it is not unusual to see a company of a dozen or fewer birds on the beach or about the fish pounds. There must be a small nesting place somewhere near Cedar Point, but it has never been discovered to my knowledge. I have never seen a nest of this species in the area under consideration. During August these birds frequent the river gorges, where they are pretty certain to meet death at the hands of some "man with a gun."

48. *Herodias egretta.*—American Egret.

There is a specimen in the collection of Mr. R. E. Jump, of Oberlin, which was captured by Mr. Jump prior to 1885, in the vicinity of Oberlin, and a specimen in the collection of Mr. A. Hengartner, of Lorain, taken near Lorain in 1897, by Mr. Hengartner. These were undoubtedly wanderers far out of the ordinary range of the species.

49. *Butorides virescens.*—Green Heron.

A tolerably common breeding bird over the whole region. The first migrants reach us near the 25th of April, and the most have left the region by the first of October. The latest record is November 13, 1897, when one tarried in the vicinity of the Oberlin Water Works reservoir all the autumn. Prior to 1900 it was not unusual to find groups of a half dozen nests in the button bush thickets at Oak Point and elsewhere, but of late years nests are more often found singly in such situations or in orchards. They sometimes resort to thickets of slender second growth along the borders of streams. These herons eat great numbers of grasshoppers, as examination of stomachs proves.

50. *Nycticorax nycticorax naevius.*—Black-crowned Night Heron.

The only specimen taken in the region is now in the collection of Mr. R. E. Jump, of Oberlin. I have searched for the bird in vain, but am not yet convinced that it is as rare as the lack of success would indicate.

51. *Rallus elegans.*—King Rail.

On three visits to a lagoon on Middle Bass island the King Rails have been the most conspicuous birds there. All of these visits were a month after the breeding season, so it is likely that a good many young birds were among the lot. In the Sandusky marshes the birds are less easily found, and seem to be less numerous. During the migrations single individuals may be found practically anywhere out of the woods. I have met them along roadsides, in barn yards, about small field ponds, in the marshes, and along the sand spit. Away from the wet places the single birds are usually no more wary than a hen, but in the marshes they get out of sight quickly, or even fly away from one. The spring migration seems to take place during the first week of May. In 1906 I found two individuals at the sand spit on October 15, and one on the 22d. Whether or not this is unusually late I am unable to say, since these are my only fall records.

52. *Rallus virginianus.*—Virginia Rail.

Common in the marshes from the middle of April until the first of October, and not infrequently found in any wet place. A pair raised a brood of eleven in a small swamp made by removing earth

for filling, less than ten rods from the Oberlin Water Works reservoir, in the summer of 1907. The nearest occupied dwelling-house was about twenty rods away. Men with teams were removing earth from a bank about three rods from the nest every day. I have found this rail in all of the marshy stream mouths, where the nest is placed upon a grass tussock, always at least six inches above the water. The peculiar calls of these birds are one of the features of the marshes in summer. In my experience this rail flushes more readily than the Sora, and is inclined to fly farther. Judging from the number of birds actually seen, it is the more common. My earliest date for a nest with eggs is May 8, 1903.

53. *Porzana carolina.*—Sora; Carolina Rail.

Common in the marshes from the first week in April until the last week of October, and often met with in small marshy or wet fields. It is pretty closely associated with the last species during the breeding season. I have a suspicion that it is our most common rail, but its reluctance to rise above the vegetation, and its adeptness at dodging and hiding have made actual sight records fewer than of the preceding species. I have never found specimens of the Virginia Rail which had been killed by striking wires or other obstructions, but there are a number of such instances of this species being killed in this manner, and that in both seasons of migration. The calls of the Sora are often given in a sort of concert. Perhaps it would be a more accurate description to say that the call of one bird is followed by a wave of calls over the marsh.

Rail shooting does not seem to be much practiced hereabouts. Perhaps the extreme difficulty of getting about in the marshes may prove a serious hindrance to hunters.

54. *Porzana noveboracensis.*—Yellow Rail.

The only record known to me is that of a live bird brought in from the marshes and confined in a cage for some days, in the Oberlin College Museum. It finally escaped—with its skin! I am unable to give even the approximate date of this record. There is probably little doubt that it is more or less regular at least in the migrations.

55. *Ionornis martinica.*—Purple Gallinule.

"Professor E. L. Moseley reports a specimen captured at Sandusky bay, April 28, 1896; Dr. Carl Tuttle, one which had flown against the telegraph wires and was killed, 'along the lake shore,' September 2, 1894 (Auk XII, 191)." Jones, Birds of Ohio, 61.

56. *Gallinula galeata.*—Florida Gallinule.

The parts of the marsh that are covered by vegetation are full of them during the summer. My records indicate that they ar-

rive during the last week of April. I have no fall records. The nests are built up from the water, usually heaps of vegetation, which are always dry on top, with a made runway from the nest into the water, up which the birds climb in going from the water upon the nest. The places where I have found nests the most numerous were near the borders of open water where the vegetation is dense. The birds seem to require effective cover, but sufficient space between the stalks for easy progress swimming or wading. If one approaches the nest the bird slides off and almost immediately begins a protesting cackle, circling about among the reeds just out of sight. At least one pair has appropriated Biemiller's Cove for a nesting place, and the whole family may be seen there busily at work picking up a living. It is a common sight, in season, to see Gallinules lined up along the border of Black Channel, industriously feeding just at the edge of the channel. Many times I have counted upwards of fifty at the west entrance to this channel. One can penetrate the marsh practically nowhere without calling forth loud protestations from these birds.

57. *Fulica americana*.—Coot.

Abundant in the marshes during both migrations, but breeding only sparingly. It is a frequent April visitor at the Oberlin Water Works reservoir. Coots arrive in the marshes as soon as the ice disappears, which was March 9, 1908, but not until March 25, 1907, and become common in a few days. They remain extremely common until well toward the middle of May (May 20, 1907), then decrease to a few breeding pairs. They return to common about the middle of September, and remain very numerous until the first touch of winter—near the middle of November. My latest record is November 26, 1906. The Coots are much more open water frequenters than the Gallinules, and fly rather more readily when startled. They feed more in the open water near the borders of the marsh, or along the borders of any open water area. They are seldom seen feeding singly in the marshes during the migration movements, but gather into companies, sometimes numbering over a hundred individuals. Their hen-like movement of the head and neck when they are swimming makes it easy to distinguish them from the ducks when both occur in the same company. They do not seem to fraternize with the ducks to any extent.

58. *Steganopus tricolor*.—Wilson's Phalarope.

There are two records, both in the vicinity of Oberlin. On May 10, 1899, there was one at the Oberlin Water Works reservoir, and on the 14th of the same year one at a small field pond just outside the village limits. I feel certain that the species is one which regularly visits the area, but has escaped notice.

59. *Philohela minor.*—Woodcock.

Regular, and common in suitable localities. Its arrival from the south is a good deal dependent upon the weather. If there is little snow during March the birds may be expected by the middle of that month (March 10, 1902), but if there is pretty continuous snow they wait until near the first of April. My latest fall record is October 9, 1897, but it is more than likely that this is too early for the bulk of the fall migrations. I have found them at various places along the sand spit, and feel confident that several pairs breed in the denser shrubbery east of the Lake Laboratory, as well as west of the pleasure resort grounds. The presence of these birds is best noted during the mating season, when their twilight courting antics and notes may be seen and heard in almost any piece of woods of more than a few acres extent. Many of the larger swampy woods are being cleared away and the breeding places correspondingly restricted, but the birds cling tenaciously to the remnants that are left, or even nest in the brushy borders along fences if the humidity conditions remain congenial. There seems to be relatively little hunting of these birds in this region, so that there is reason for hoping that their extermination will be postponed for long. It is worth any one's while to go into the haunts of this bird during the courting season for the purpose of noting the courting methods. The male birds seem to be almost fearless at such times. Near at hand one will hear, with startling distinctness, "bzzz-z-z-st, bzzz-z-z-st, bzzz-z-z-st, bzzz-z-z-st," sometimes repeated many times before the bird mounts diagonally upward through the opening among the trees with short, whistling wing beats, launches out over the woods high up, in mazy circlings, upward until nearly lost to sight, and far away from the starting point, then the flight ceases with the peculiar whistling noises, and the bird floats downward by a crooked path, the while calling in coaxing tones "p chuck tuck cuck oo, p chuck tuck cuck oo, p chuck tuck cuck oo," uttered more slowly at first, regularly increasing in rapidity until the notes are almost a continuous weedling call as the bird descends into the woods, cease entirely just as he regains his perch. Almost immediately he again begins his call "bzzz-z-z-st," and the whole performance is repeated. In the chasing flight, which is certain to follow this demonstration of affection, the birds are completely lost in the business (?) of the moment, and all but dash into the observer if he happens to be in their line of flight.

60. *Gallinago delicata.*—Wilson's Snipe.

Tolerably common during the migrations. It usually arrives during the last week in March, depending somewhat upon the weather, and departs northward near the 10th of May. I have not found many at Cedar Point in the marshes, probably because it has not

been practicable to beat about there for them, but at Oak Point, where the marshes grade into mud and grass flats I have always found considerable numbers at the proper seasons. It is also not uncommon in the meadows in which water stands in spring. The old dead-furrows which contain water are pretty certain to have their quota of from one to many Snipes during April. Fifteen years ago there was considerable snipe hunting, but I have seen very little of it recently. In the fall the birds return late in September and remain about a month. At this season one must look for them in marshy ground, where the food is abundant. It has never been my fortune to see and hear the courting antics of this bird.

61. *Tringa canutus.*—Knot.

I have not met this bird, but Mr. L. M. McCormick, who spent a number of years at Oberlin prior to 1892, states in his manuscript list that it is a rare migrant on the lake shore only. In view of its regular occurrence at Point Pelee one might reasonably expect to find it somewhere along the route of migration.

62. *Pisobia maculata.*—Pectoral Sandpiper.

The most numerous of our sandpipers prior to 1898, but since then it has been scarce. I believe that one of the causes for its diminution has been the draining and undertiling of the meadows and boggy pot holes in which it found good feeding places, because the places where I now find it are meadows made temporarily wet by newly constructed railroad embankments or other obstruction. I have never seen single individuals while the birds are here, but always flocks. The first appear during the first ten days of April (earliest April 3, 1909), and the last have gone north by the middle of May. The only fall record I have is for the sewer settling beds, September 20 and 25, 1907, a flock of twelve birds.

63. *Pisobia bairdii.*—Baird's Sandpiper.

I have only two actual records for the region. Mr. L. M. McCormick makes the statement, backed up by three specimens in the Oberlin College collection, that it was common on August 30, 1890, at Oak Point. I found one at the Oberlin Water Works reservoir on April 28, 1909. I feel confident that this sandpiper is fairly regular in its migrations across this region, but it has somehow escaped being seen.

64. *Pisobia minutilla.*—Least Sandpiper.

This sandpiper makes its appearance pretty regularly during the second week in May, and is therefore among the latest migrants. It rarely remains more than five days. I have no positive fall records. While here it is more often found on the mud flats or in shallow field ponds feeding industriously, but flocks may occasionally

be found ranging along the lake beach. A low conversational twitter usually accompanies the feeding movements. The birds are not at all wary, so that one may approach almost near enough to note the absence of the web, which certainly distinguishes this from the Semipalmated.

65. *Pelidna alpina sakhalina*.—Red-backed Sandpiper.

I have only four positive records for this sandpiper, as follows: May 8, 1905, and May 17, 1909, two birds each time, on the Cedar Point sand spit; October 6, 1890, at Oak Point, and October 27, 1906, five birds near Huron. I find an additional record by Mr. L. M. McCormick for May 21, 1891. There is every reason for believing that this sandpiper has been regularly overlooked, and that it occurs in each migration in fair numbers. Each of my records are for the lake beach.

Moseley reports it at Sandusky, October 23, 1904.

66. *Ereunetes pusillus*.—Semipalmated Sandpiper.

It is not regularly found in its northward migration, probably because field work in the places where it stops to feed has been largely wanting at that particular time. My spring records are May 16, 18 and 19, 1903; May 19 and 23, 1906; and May 22, 1909. Fall records are September 8, 1904; September 23 and 25, 1907; from July 15 to the middle of August, 1908. It has always been found running along the lake beach, feeding in the wave-washed rubbish. It often accompanies other sandpipers, notably the Sanderling and Spotted. In other places I have found it with the Least, feeding on mud flats or along areas uncovered at low tide. Numbers were found at the lagoon on Middle Bass when low water exposed the mucky bottom. They are appreciably larger, and lighter colored, both above and below, than the Least Sandpiper, with which they are most readily confused. I have almost always found this species in small flocks. On the beach they may be approached to within a rod without taking wing.

67. *Calidris leucophæa*.—Sanderling.

Strangely enough, all but one of my records for the whole region are fall records; the one exception is May 19, 1903, when one was found at Oak Point. The earliest fall record is July 21, 1908, when there were six on the beach at the Lake Laboratory. They remained during the remainder of my stay (I left on July 31), and were not seen again on subsequent visits. The latest fall record is October 9, 1897. They can hardly be called common, but they are pretty regular fall visitors at the lake beach. The distinctly lighter color than any of the other shore birds with long black bill and legs, are certain field marks. They are more often seen with the Semipalmated Sandpipers than with any others, unless it be the Spotted;

but if there are several Sanderlings in the flock they fly together and away from all of the others. They are not timid, and can be approached closely.

68. *Totanus melanoleucus.*—Greater Yellow-legs.

Spring dates of arrival range from April 12, 1905, to April 30, 1906, so that it is difficult to state the probable date of arrival. I incline to think that the birds actually appear near the middle of April, being a good deal influenced by weather. They are likely to tarry until the middle of May. Fall records are too few to be reliable. The earliest date of arrival is September 4, 1899, which is probably too late, and the latest record is October 27, 1906, near Huron. This bird is a frequent visitor to the Oberlin Water Works reservoir, from where his startling "tell-tale" calls may be heard all over town in the morning. I have a number of lake beach records, but the favorite stopping places are inundated muck patches or shallow ponds at the edge of woods. The Middle Bass lagoon, at low water, is a typical feeding place. In such places they stand "knee deep" in the water, often darting hither and thither for some water inhabitant, sometimes feeding with the whole head and upper neck immersed. One could hardly call this species common at any time, but it is regular and in some numbers.

69. *Totanus flavipes.*—Yellow-legs.

This species is rather closely associated with the last, but is about a week later in spring, and I have heard it and seen it flying over the marshes on July 5, 1907, 1908. It is more numerous than the Greater, and in flocks containing both species, a frequent condition, the smaller size and weaker voice are evident. I have no beach records for this species.

70. *Helodromas solitarius.*—Solitary Sandpiper.

The earliest spring arrival was April 18, 1909, and the latest spring record May 25, 1903. The median date of arrival is April 29, and of departure May 19. The first fall record is August 22, 1896, and the latest October 7, 1907. This is our woods sandpiper, or more exactly, woods border, for at the proper season one is practically certain to find one or more of these birds at any pond in the edge or border of a woods. As the name indicates, one finds single individuals rather more often than more than one in a place, but during the migrations it is not rare to find as many as ten at a small pond. On May 14 and 16, 1904, and again on May 14, 1906, these birds were in such numbers as to be recorded as common. On these occasions several were found on every woods pond visited, and at the marshes at Oak Point, there were birds almost everywhere. Many persons seem unable to distinguish this species from the Spotted unless it is well seen and quiet. The note is similar, it

is true, but a double "peet weet"; there are white feathers in the tail, and the birds usulaly rise in a zig-zag flight, going much farther up than the Spotted does, and not flying low out over the water in a loop, returning to the shore.

71. *Catotrophorus semipalmatus inornatus.*—Western Willet.

It is recorded in the card catalog of Cedar Point birds by Griggs, 1900, as follows: "A few individuals." My only record is a captured bird in immature plumage, September 17, 1906, at Oak Point. The bird was a male. Since this specimen is clearly the western form I have taken it for granted that any others found in the region will prove to be the same.

72. *Bartramia longicauda.*—Bartramian Sandpiper.

Uncommon, but regular from the second week in April until the beginning of September. There are two places within a mile of Oberlin where I am sure to find it, and I have discovered a place between Oberlin and Birmingham where the birds nest regularly. A careful census of these birds would probably show that there is a pair to about every section of land which is not too largely wooded. Here they seem to breed in winter wheat fields, which lie close to permanent pastures, irrespective, as far as I can determine, as to whether the land lies high or low. In fact, there is little up-and-downness to the regions where I have found breeding birds, so that their choice must fall upon otherwise suitable nesting sites. The first evidence of the presence of these birds in spring is the flight call, given while the bird is high in air. In a few days the mating whistle is heard, and soon thereafter the birds are located. There were young birds barely able to fly on July 11, 1901.

73. *Actitis macularia.*—Spotted Sandpiper.

Our commonest shore bird. The median date of arrival for thirteen years is April 16. The earliest record is April 9, 1904. The latest fall date is October 30, 1905. Most of the birds have left by the middle of October. It is common all along the lake beach, perhaps a little more so along the sand spit than elsewhere. It is also common along all streams and about all ponds. Away from the lake it often nests in grain fields at some distance from water. It is, perhaps, gratuitous to mention the several little mannerisms which make this sandpiper easily distinguished in the field. The nervous teetering of the body is accompanied by a deep and continuous wag of the hinder part of the body; the flight low out over the water is accomplished by one strong beat of the wings succeeded by several half beats like the rolling of a drum stick. The flight is out in an arc of a circle, the arc reaching the shore at an acute angle. Of course I would not be understood as insisting that the birds always do such things, but they do frequently enough so that they become distinctive of the species.

74. *Numenius americanus.*—Long-billed Curlew.

I find this card reference: "1 specimen, July 20, '06. Rice." There is probably no doubt that the bird recorded was a curlew, but since the Ontario specimens are mostly Hudsonian, there may be a reasonable doubt as to the species.

75. *Squatarola squatarola.*—Black-bellied Plover.

The only positive records are May 16 and 18, 1908, near the Lake Laboratory on the beach. This certainly cannot prove that this species is accidental in the region. It is possible that there is no line of flight for the migrations across the region, and therefore any specimens found are wanderers from the line of flight.

76. *Charadrius dominicus.*—Golden Plover.

There are a number of scattering records for the Oberlin quadrangle, but no migration dates can be assigned. When found the birds are in open pasture fields in small flocks. There has been a marked diminution in numbers in the last twenty years.

77. *Oxyechus vociferus.*—Killdeer.

A common summer resident. It belongs with the first wave of migration and leaves only with the advent of winter. In late summer it is frequently seen in flocks of from half a dozen to fifty individuals, but at other times it does not flock. It is only occasionally seen on the lake beach, but rather frequents small ponds which have a shallow border. The favorite nesting place hereabouts is a plowed field, preferably fall plowing. Nests have been found in pastures and meadows. In straightaway flight the actions of a flock somewhat resemble pigeons in flight. In fact, more than once I have had an elderly man who had been familiar with the Passenger Pigeons in their palmy days remark, upon seeing a considerable flock of these birds, "There goes a flock of Pigeons." On several occasions of peculiarly favorable conditions for migration in spring I have seen great numbers of Killdeers migrating parallel to the lake shore, and always eastward all day long. It appeared that the lake had diverted the stream of migration from the northward direction, and the birds were seeking a land passage. Many that struck out boldly for the Ontario shore soon returned and joined the eastward moving host. I have never been at the island route at the times when these birds are migrating.

78. *Egialitis semipalmata.*—Semipalmated Plover.

All records are scattering. Three were noted May 14, thirteen May 16, and seven May 19, 1903; five May 14, 1906; two May 13, 1907; none in the spring of 1908 and 1909. One on September 4 and 11, 1897; one on September 9 and 14, 1899; two on September 8, 1904; one on July 8, and one on October 21, 1907; one on July 21, 1908. All of these are lake beach records, the July records at

the Lake Laboratory. As the records indicate, single birds are usually seen, and I am inclined to believe that they represent trailers rather than the stream of migration. They are usually associated with Spotted Sandpipers, Sanderlings, and Semipalmated Sandpipers, feeding at the waters edge, ranging up and down the beach. I believe that Pelee Island would furnish the clue to the migration route northward as well as southward of this Plover.

79. *Ægialitis meloda*.—Piping Plover.

Several pairs were found breeding near the Lake Laboratory in 1903, and their presence there on June 17, 1904, indicates that there was at least one pair breeding that year, but I have failed to find any in summer since, nor any on the islands at any time. At best the species is scarce. Records of occurrence are May 16, 1903, one at Oak Point, and perhaps six pairs near the Lake Laboratory during the breeding season; June 17, 1904, a pair near the Lake Laboratory; April 15, one, and May 13, one on the sand spit, 1907; May 18, 1908, two on the sand spit; May 17, 1909, one on the sand spit. I have heard voices that I believe to have been of this bird in early July at the Lake Laboratory, in 1907 and 1908, but it was at twilight and the birds were flying. If they were Piping Plovers they were probably the first of the returning birds from the north.

80. *Arenaria interpres*.—Ruddy Turnstone.

I have found it on the lake beach from the middle to the last of May, usually in companies of from five to thirty individuals. The only fall record is September 8, 1904, at Oak Point. Unlike most of the other Shore Birds, the Turnstones range over the whole width of the beach when feeding. They are frequently seen standing quietly on the packed sand, or even on the flat tops of the piles driven to prevent the wash of the storm waves. There is no frequenter of the beach so strikingly colored nor more interesting to watch from cover. The misnomer 'Calico-back' does these birds a rank injustice, if the mental picture which that name conjures up is like mine — any hideous blue and white pattern of cheap dressing goods. The patchy black, white, and ruddy pattern of these birds in full breeding plumage is rather a hint of wealth than of poverty.

ALEXANDER WILSON.

VI.—His Nomenclature.

BY FRANK L. BURNS.

Dr. Coues has declared that science would lose little, but on the contrary, would gain much if every scrap of pre-Wilsonian writing about United States birds could be annihilated. It is true that foreign naturalists had been, for the most part, bigoted, misinformed or too credulous; and the few native writers unsystematic, lacking in initiative and realization of the importance of exactness. However, Wilson did not find systematic ornithology an utter chaos. Linnæus, the great compiler, and his editor Gmelin, had absorbed much from our earlier writers, particularly Catesby, and his Systema Naturæ provided the ground plan and skeleton, it remained to be consolidated, clothed, the gaps filled in; far too great a task in its entirety for the inexperience and brief period of Wilson, even had he the inclination for such work.

Wilson adopted, and with some exceptions, followed the system used by Dr. J. Latham in his Index Ornithologicus, and General Synopsis of Birds, which the Philadelphia library supplied him. For the use of M. Turton's version of Linnæus' Systema Naturæ, he was indebted to his friend Thomas Say. Mark Catesby's Natural History of Carolina, Florida and the Bahama Islands; George Edwards' work; Thomas Jefferson's Notes on the State of Virginia; William Bartram's Travels through North and South Carolina, Georgia, East and West Florida, the Cherokee Country, the extensive territories of the Muscogulges, or the Creek Confederacy, and the Country of the Choctaws; Jeremy Belknap's History of New Hampshire; S. Williams' Natural and Civil History of Vermont; and Benjamin Smith Barton's Fragments of Natural History of Pennsylvania; he found in Bartram's library, or elsewhere

Dr. Francis in describing Wilson's visit to New York, says that he seized the moments of leasure he had, in closely examining books on natural science, in different libraries to

which he could obtain ready access The American Museum, which had been well fitted up, was however, his most gratifying resort. Scudder, the founder of this institute, was indeed a rough diamond, but few could surpass his enthusiasm in studying the volumes of nature, as he termed every object in natural history. Scudder remarked "I have many curiosities here, Mr. Wilson, but I myself am the greatest one in the collection." [1]

In this manner, Wilson obtained the slender book knowledge of birds he possessed. At the time of his death, according to a statement of his executor, his shelves contained but one ornithological work, Thomas Berwick's History of British Birds! He was no closet naturalist . He was eager for the exact truth direct from nature. Ord, with some justice, complains: "In his specific definitions he is loose and unsystematic. He does not appear to have been convinced of the necessity of precision on this head; his essential and natural characters are not discriminated; and in some instances, he confounds generic and specific characters, which the laws of methodical science do not authorize. . . . That he was not ambitious of the honor of forming new genera, appears from the circumstance, that, although he found the system of Latham's needed reformation, yet he ventured to propose but one genus, the *Curvirostra*, the characters of which are so obvious, that one is astonished that so learned an ornithologist as Latham, should have contented himself with arranging the species appertaining to it with others, the conformation, of whose bills is so dissimilar. It may be necessary to state that Crossbills have been erected into a separate genus, under the denomination of *Crucirostra*, by an author whose works Wilson had no knowledge of: and I have reason to believe that even the generic appelation of *Curvirostra* had been anticipated, by a writer on the ornithology of the northern parts of Europe. Brisson limited his genus *Loxia* to the Crossbills, and this judicious restriction appears to be now sanctioned by all naturalists of authority."

[1] Obituary Notice of Alexander Wilson. The Port Folio, New Series, Vol. II. Sept. 1813.

In the spring of 1804, Wilson knew scarcely an American bird. He constantly appealed to Bartram to mark the names of his species under his drawings. Soon the multiplicity of current specific names purplexed and annoyed him, and he writes to Bartram: "The more I read and reflect upon the subject, the more dissatisfied I am with the *specific* names which have been used by almost every writer. A name should, if possible, be expressive of some peculiarity in color, conformation, or habit; if it equally apply to two different species, it is certainly an improper one. Is *migratorius* an epithet peculiarly applicable to the robin? Is it not equally so to almost every species of *turdus* we have? *Europea* has been applied by Pennant to our large *sitta* or nuthatch, which is certainly a different species from the European, the latter being destitute of the black head, neck and shoulders of ours. Latham calls it *carolinensis*, but it is as much an inhabitant of Pennsylvania and New York as Carolina. The small red-bellied *sitta* is called *canadensis* by Latham, a name equally objectionably with the other. *Turdus minor* seems also improper; in short I consider this part of the business as peculiarly perplexing; and I beg to have your opinion on the matter, particularly with respect to the birds I have mentioned, whether I shall hazard a new nomenclature, or, by copying, sanction what I do not approve." Fortunately for the already overburdened synonymy, Bartram's council was doubtless for a conservative course, and ever after Wilson labored diligently to adopt names sanctioned by some one or other of his predecessors, with due regard as to fitness, but little as to priority.

Wilson evidently endeavored to establish the identity of Bartram's species whenever possible, but referred to the List less and less as his own work progressed and his knowledge increased, doubtless realizing the hopelessness of the task, with nothing but the meagre description and the failing memory of his patron to assist him in the identification. On the other hand as Coues has stated, many birds which Wilson first fully discribed and figured, were named by Bartram, and several of the latter's designations were simply adopted

by Wilson, who in relation to Bartram, is as the broader and clearer stream to its principal tributary affluent.[1] So far as the ornithological world is concerned, the originals are now mere literary curiosities, and are appended as a matter of history.

Bartram, 1791.	Wilson, and A. O. U. Check List.
1. *Vultur atratus.* the black vulture, or carrion crow.	*Vultur atratus* Wils.—*Catharista atrata* (Bartr.) until 1899, when it gave way to a later name—*C. urubu* (Vieill.) Bartram being eliminated.
2. *F[alco] niger.* the black hawk.	*Falco niger* Wils. Black Hawk. A synonym of *Archibuteo lagopus sancti-johannis* (Gmel.) American Rough-legged Hawk.
3. *Muscitapa nunciola.* the pewit, or black-cap flycatcher.	*Muscicapa nunciola* Wils. Pewit Flycatcher. Synonym of *Sayornis phœbe* (Lath.) Phœbe.
4. *M. rapax*, the lesser pewit, or brown and greenish flycatcher.	*Muscicapa rapax* Wils. Wood Pewee. Synonym of *Myiochanes virens* (Linn.)
5. *Lucar lividus.* the cat bird or chicken bird.	*Turdus lividus* Wils. Catbird. Synonym of *Dumetella carolinensis* (Linn.)
6. *Muscicapa cantatrix.* the little domestic flycatcher or green wren.	*Muscicapa cantatrix* Wils. White-eyed Flycatcher. Synonym of *Vireo griseus* (Bodd.) White-eyed Vireo.
7. *Sturnus prædatorius* the red-winged starling or corn thief.	*Sturnus prædatorius* Wils. A synonym of *Agelaius phœniceus* (Linn.) Red-winged Blackbird.
8. *C[arduelus] pinus* the lesser goldfinch.	*Fringilla pinus* Wils. Pine Finch. *Spinus pinus* (Wils.) Pine Siskin.
9. *P[asser] palustris* the reed sparrow.	*Fringilla palustris* Wils. Synonym of *Melospiza georgiana* (Lath.) Swamp Sparrow.
10. *F[ringilla] rufa* the red, or fox-colored ground or hedge sparrow.	*Fringilla rufa* Wils. Synonym of *Passerella iliaca* (Merr.) Fox Sparrow.
11. *M[otacilla] Caroliniana* the great wren of Carolina.	*Certhia carolinensis* Wils. Synonym of *Thryothorus ludovicanus* (Lath.) Carolina Wren.

[1] Key to North American Birds.

12. *M. domestica* the house wren.	Named only with reference to Bartram by Wilson *Motacilla domestica Bartr.* Synonym of *Troglodytes aedon* Vieill. House Wren.
13. *M. palustris* the marsh wren.	*Certhia palustris* Wils. *Telmatodytes palustris* (Wils.) Long-billed Marsh Wren.
14. *Sitta varia* the black-capped, red-bellied nuthatch.	*Sitta varia* Wils. Synonym of *Sitta canadensis* Linn. Red-breasted Nuthatch.
15. *T[urdus] melodes* the wood thrush.	*Turdus melodes* Wils. A synonym of *Turdus mustelinus* Gmel. Wood Thrush.

Perhaps, Bartram's *N[umenius] pectore rufo*, or *Tringa rufa*, may have suggested Wilson's *Tringa rufa* Red-breasted Sandpiper; and *Ardea viriscens minor*, his *Ardea minor* Bittern; though the species are certainly not the same. Wilson failed to make use of *P[asser] agrestis*, the little field sparrow, though perhaps *C[arduelis] pusilus*, the least finch, may have suggested his *Spizella pusilla* for the Field Sparrow; nor did he adopt Bartram's *M[otacilla] sylvicola*, the little red-eye'd flycatcher for that species, but transferred the specific name to the Yellow-throated Vireo; and likewise *P[arus] viridis gutture nigro*, the green black-throated flycatcher, to *Hirundo viridis*, White-bellied Swallow. *Fringilla rufa* Bartr. was changed to *F. ferruginea* and marked new in his Catalogue, Vol. VI.

Bartram would serve as an ideal patron saint for a bird protective association. He was exceedingly averse to killing anything, and writes "as long as I can get any other necessary food, I shall prefer their seraphic music in the ethereal skies, and my eyes and understanding gratified in observing their economy and social communities, in the expansive green savannas of Florida." He would not kill the deadly diamond-backed rattlesnake, if it was possible to avoid it, because at the beginning of his career as a botanist, a mountain rattler had refused to strike when he had mistaken it for a curious bit of fungus. However, accidental specimens described in the field are not always satisfactory, and sight diagnoses

seldom accurate; therefore it is small wonder he erred repeatedly. His nomenclature is a mixture of Linnæus, Edwards, Catesby and his own. Unlike Wilson, he seemed never at a loss for a name, and if he had more than one occasion to refer to a species, he seldom repeated the name he had given it, but produced another. Hence we have *Colymbus colubrinus et cauda elongata*, the snake bird of Florida=*Anhinga anhinga*, Anhinga; *Meleagris Americanus et occidentalis=M. gallopovo merriami*, Merriam's Turkey; *Falco aquilinus et major cauda ferrugineo*, the great eagle hawk=*Buteo borealis*, Red-tailed Hawk; *F. regulis et maximus*, the great gray eagle=*Haliœetus leucocephalus*, Bald Eagle; *Strix acclamator et various*, the hooting owl=*Syrium varium*, Barred Owl; *Caprimulgus lucifugus et rufus*, the great bull bat or chuck wills widow.=*Antrostomus carolinensis*, Chuck-wills-widow; *Garrulis australis et Motacilla trochilus=Icteria virens*, Yellow-breasted Chat; *Motacilla palustris et regulus atrofuscus minor*, or marsh wren=*Telmatodytes palustris*, Long-billed Marsh Wren; *Turdus melodes et minor=Turdus mustelinus*, Wood Thrush; and perhaps others.

Not only Wilson, but Barton, Vieillot and Audubon quarried in the ruins of his nomenclature. His list of 215 nominal species, are by no means all identifiable. He did not understand the various changes of plumage some of our birds are subject to, in one or more instances differentiated the sexes of a species, and the confusion was not lessened by the more than occasional employment of established technical terms not applicable to the species under consideration. According to Coues about half are new, and subtracting a number unquestionably derived from other sources, though misapplied, and repetition or multiplication through ignorance of variation in plumage, the number is still large and contains several unknown to Wilson. It is also evident that some one must have imposed upon "Puc Puggy" (the Flower Hunter), as he was known to the Seminoles, in the instance of the so-called *Vultur sacra*, the painted or white-tailed vulture, which he tells us fed upon roasted lizards, snakes and frogs, therefore dependent upon the occasional

firing of the Florida savannas by lightning or the Indians, It is now considered a mythical species. Dr. Allen suggesting that it originated from some facts known to Bartram in connection with the Bald Eagle and the Caracara becoming mixed in his mind with some of his ideas respecting the King Vulture of the American tropics. For over a quarter of a century, Dr. Coues fought for the recognition of some twenty of Bartram's names, but aside from his polynomial tendencies, so many of his species were impossible of positive identification, it must have been a relief to have the bird solons finally decide adversely and eliminate Bartram entirely.

Barton attempted a concordance of Bartram's list in his Fragments of Natural History, 1799, with no very great success. It is full of errors and conjectures in respect to the identity of Bartram's species. He was, however, a strict binomialist, and receives recognition wherever he has properly described a species. From him Wilson has undoubtedly taken his *Fringilla melodia=Melospiza melodia*. Barton places it with the species known to breed in Pennsylvania, and also states: "In mild winters, this bird continues in Pennsylvania, associating with the Snowbirds. Does not appear to be described." Procrastination and lack of energy most probably robbed Barton of the title of Father of American Ornithology. His lamentable lack of concentration drew forth the rather contemptuous observations from Wilson in a letter to F. A. Michaux, the French naturalist; June 6, 1812: "Dr. Barton has not yet published his General Zoology, which he has been announcing, from time to time, for so many years. It is much easier to *say* these things than to do them." Ord states that after the work was ten years in the press, it had advanced no further than *fifty-six* pages in octavo, at the death of the author. "The printed sheets I have read, not only with satisfaction, but instruction; and cannot forbear expressing my regret that an undertaking, which Dr. Barton certainly knew how to perform, and to which his learning was adequate, should have been suffered to perish in embryo."

Wilson was not well versed in Latin, in fact there are

many who considered him a very unlearned man, because he obtained most of his knowledge direct from nature. Herein lies his success. The book knowledge of his predecessors did naught but deepen the obscurities surrounding the species they sought to elucidate. The conviction that here, at last, was a man who could write plainly and convincingly, from intimate personal knowledge, did more to dispel the mysteries of the past than all the high-sounding Latin names, phrases and references; and the appearance of his work marked a new era, glorious to American Ornithology. Wilson is accredited with the following species, which he figured, described and named.

WILSON'S AMERICAN ORNITHOLOGY.	A. O. U. CHECK LIST.
1. *Anas valisineria* Canvas-back Duck	= *Marila vallisneria* (Wils.) Canvasback.
2. *Tringa solitaria* Solitary Sandpiper	= *Helodromas solitarius* (Wils.) Solitary Sandpiper.
3. *Falco misisippiensis* Mississippi Kite	= *Ictinia mississippiensis* Mississippi Kite. (Wils.)
4. *Falco velox* Sharp-shinned Hawk	= *Accipiter velox.* Sharp-shinned Hawk.
5. *Falco atricapillus* Ash-colored or Black-cap Hawk	= *Astur atricapillus* (Wils.) American Goshawk.
6. *Cuculus erythropthalma* Black-billed Cuckoo	= *Coccyzus erythrophthalmus* Black-billed Cuckoo. (Wils.)
7. *Caprimulgus vociferus* Whip-poor-will	= *Antrostomus vociferus* (Wils.) Whip-poor-will.
8. *Corvus ossifragus* Fish Crow	= *Corvus ossifragus* (Wils.) Fish Crow.
9. *Corvus columbianus* Clark's Crow	= *Nucifraga columbiana* (Wils.) Clark's Nutcracker.
10. *Fringilla pinus* Pine Finch.	= *Spinus pinus* (Wils.) Pine Siskin.
11. *Fringilla savanna* Savannah Sparrow	= *Passerculus sandwichensis savanna* (Wils.) Savannah Sparrow.
12. *Fringilla maritima* Seaside Finch	= *Passerherbulus maritimus* Seaside Finch (Wils.)
13. *Fringilla pusilla* Field Sparrow	= *Spizella pusilla* (Wils.) Field Sparrow.
14. *Fringilla melodia* Song Sparrow	= *Melospiza melodia* (Wils.) Song Sparrow.
15. *Tanagra ludiviciana* Louisana Tanager	= *Piranga ludiviciana* (Wils.) Western Tanager.
16. *Muscicapa solitaria* Solitary Flycatcher	= *Vireo solitarius* (Wils.) Blue-headed Vireo.

17. *Sylvia rubricapilla* Nashville Warbler	= *Vermivora rubricapilla* Nashville Warbler. (Wils.)
18. *Sylvia peregrina* Tennessee Warbler	= *Vermivora peregrina* (Wils.) Tennessee Warbler.
19. *Sylvia magnolia* Black and Yellow Warbler	= *Dendroica magnolia* (Wils.) Magnolia Warbler.
20. *Sylvia cerulea* Cerulean Warbler	= *Dendroica cærulea* (Wils.) Cerulean Warbler.
21. *Sylvia castania* Bay-breasted Warbler	= *Dendroica castanea* (Wils.) Bay-breasted Warbler.
22. *Sylvia formosa* Kentucky Warbler	= *Oporonis formosa* (Wils.) Kentucky Warbler.
23. *Sylvia agilis* Connecticut Warbler	= *Oporornis formosa* (Wils.) Connecticut Warbler.
24. *Sylvia philadelphia* Mourning Warbler	= *Oporornis philadelphia* (Wils.) Mourning Warbler.
25. *Muscicapa pusillo* Green black-capt Flycatcher	= *Wilsonia pusilla* (Wils.) Wilson's Warbler.
26. *Certhia palustris* Marsh Wren	= *Telmatodytes palustris* (Wils.) Long-billed Marsh Wren.

One more species, *Charadrius wilsonia* = *Ochthodromus wilsonia*, Wilson's Plover, was figured by Wilson, but described and named by Ord. He also figured *Rallus elegans* Aud., King Rail, confusing it with *R. crepitans*, Clapper Rail; likewise *Passerculus princeps* Mayn. Ipswich Sparrow,[1] for a male *P. sandwichensis savanna*, Savannah Sparrow; and *Turdus ustulatus swainsonii* (Cab.) Olive-backed Thrush for *T. guttata pallasii* Hermit Thrush; though in the latter instance part of the text refers to the nesting of the Olive-backed undoubtedly, the nest and eggs are closely described, perhaps for the first time; the locality however is erroneous, Mississippi being so far south of its breeding range.

Wilson found the construction of specific terms so distasteful that he often misapplied old appellations, thereby losing the honor of naming several species he had discovered, described and figured, through preoccupation of the names.

WILSON.	A. O. U. CHECK LIST.
1. *Ardea ludoviciana* Louisiana Heron	= *Hydranassa tricolor ruficollis* Louisiana Heron. (Gosse).
2. *Phalaropus lobata* Brown Phalarope	= *Steganopus tricolor* (Vieill.) Wilson's Phalarope.
3. *Falco pennsylvanicus* Broad-winged Hawk	= *Buteo platypterus* (Vieill.) Broad-winged Hawk.

[1] Stone, Alexander Wilson and the Ipswich Sparrow, Osprey, II. 1898, p. 117.

4. *Picus torquatus* Lewis's Woodpecker	= *Asyndesmus lewisi* (Riley). Lewis's Woodpecker.
5. *Muscicapa querula* Small Green, Crested Fly-catcher	= *Empidonax virescens* (Vieill.) Green-crested Flycatcher.
6. *Curvirostra americana* American Crossbill	= *Loxia curvirostra minor* American Crossbill. (Brehm).
7. *Fringilla passerina* Yellow-winged Sparrow.	= *Ammodramus savannarum australis* Maynard. Grasshopper Sparrow.
8. *Sylvia pinus* Pine-creeping Warbler	= *Dendroica vigorsii* (Aud.) Pine Warbler.
9. *Sylvia petechea* Yellow Red-poll Warbler	= *Dendroica palmarum hypochrysea* (Ridg.) Yellow Palm Warbler.
10. *Musciapa minuta* Small-headed Flycatcher	= *Sylvania microcephala* (Ridg.) Small-headed Warbler.
11. *Turdus mustelinus* Tawney Thrush	= *Turdus fuscescens* Steph. Wilson's Thrush. Veery
12. *Turdus solitarius* Hermit Thrush	= *Turdus guttatus pallasii* Hermit Thrush. (Cab).

Laboring under the unusual disadvantage of lack of reference works and ignorant of the existence of such important productions as Vieillot's, for instance; Wilson increased the synonymy materially by renaming many species which were not new. The following are all antedated.

WILSON.	A. O. U. CHECK LIST.
1. *Sterna aranea*, 1814 Marsh Tern	= *Gelochelidon nilotica* Gull-billed Tern. (Hasselq.) 1762
2. *Sturna plumbea*, 1813 Short-tailed Tern	= *Hydrochelidon nigra surinamensis* (Gm.) 1788. Black Tern.
3. *Anas rubidus*, 1814 Ruddy Duck	= *Erismatura jamaicensis* Ruddy Duck. (Gm.)
4. *Tringa semipalmata*, 1813 Semipalmated Sandpiper	= *Ereunetes pusillus* (Linn.) Semipalmated Sandpiper. 1766.
5. *Tringa bartramia*, 1813 Bartram's Sandpiper	= *Bartramia longicauda* (Bechst.) 1812. Bartramian Sandpiper.
6. *Numenius longirostris*, 1814 Long-billed Curlew	= *Numenius americanus*, Bechst. Long-billed Curlew. 1812
7. *Picus querulus*, 1810 Red-cockaded Woodpecker	= *Dryobates borealis* (Vieill.) Red-cockaded Woodpecker. 1807.
8. *Hirundo viridis*, 1812 White-bellied Swallow	= *Iridoprocne bicolor* (Vieill.) Tree Swallow. 1807.
9. *Larius carolinensis*, 1811 Loggerhead Shrike	= *Lanius ludovicianus*, Linn. 1766.

	Loggerhead Shrike.
10. *Fringilla socialis*, 1810 Chipping Sparrow	= *Spizella passerina* (Bechst.) Chipping Sparrow. 1798.
11. *Fringilla palustris*, 1811 Swamp Sparrow	= *Melospiza georgiana* (Lath.) Swamp Sparrow. 1790.
12. *Muscicapa melodia*, 1812 Warbling Flycatcher	= *Vireosylvia gilva* (Veill.) Warbling Vireo. 1807.
13. *Muscicapa sylvicola*, 1808 Yellow-throated Flycatcher	= *Lanivireo flavifrons* (Vieill.) Yellow-throated Vireo. 1807.
14. *Muscicapa cantatrix*, 1810 White-eyed Flycatcher	= *Vireo griseus* (Bodd.) 1783. White-eyed Vireo. 1788.
15. *Sylvia maritima*, 1812 Cape May Warbler	= *Dendroica tigrina* (Gmel.) Cape May Warbler. 1788.
16. *Sylvia minuta* 1811 Prairie Warbler	= *Dendroica discolor* (Vieill.) Prairie Warbler. 1807
17. *Turdus aquaticus*, 1811 Water Thrush	= *Seiurus noveboracensis* Water-Thrush. (Gmel.) 1788.
18. *Motacilla domestica*, 1808 House Wren	= *Troglodytes aedon* (Vieill.) House Wren. 1807

One of Wilson's Scotch biographers has attempted to prove that he was well acquainted with the British ornis before emigrating to America. This cannot be so, or he would have differentiated some of the many species and subspecies he pronounced identical with those of the Old World. America produced no ornithologist until the time of John Cassin, who was equally acquainted with the birds of both hemispheres; or in the restricted sense which might apply to Wilson were his biographer correct, before the time of Bonaparte. Yet had Wilson taken to heart the patriotic belief of Thomas Jefferson, imparted to him in a letter of April 7, 1805, he could not have gone so far wrong but that he would have increased his own record for new species, or rather new names, by one-half. Jefferson said: "I am of the opinion there is not in our continent a single bird or quadruped which is not sufficiently unlike all the members of its family there to be considered as specifically different." Those figured and described with the supposition that they were identical with the Old World species, equal in number the distinctively American species accredited to his name. The references to European writers are of course misapplied.

WILSON.	A. O. U. CHECK LIST.
1. *Sterna minuta* Linn. Lesser Tern	= *Sterna antillarum* (Less.) Least Tern. 1847

WILSON.	A. O. U. CHECK LIST.
2. *Procellaria pelagica* Linn. Stormy Petrel	= *Oceanites oceanicus* (Kuhl.) Wilson's Petrel. 1820
3. *Mergus merganser* Linn. Goosander	= *Merganser americanus* (Cass.) American Merganser. 1853.
4. *Anas ferina* Linn. Red-headed Duck	= *Aythya americana* (Eyton) Redhead. 1833
5. *Anas clangula* Linn. Golden Eye	= *Clangula clangula americana*, Faxton, 1885, American Golden-eye.
6. *Anas mollissima* Linn. Eider Duck	= *Somateria mollissima borealis* C. L. Brehm, 1830. Northern Elder.
7. *Anas nigra* Linn. Scoter Duck	= *Oidemia americana* (Sw. and Rich.) 1831. American Scoter.
8. *Anas fusca* Linn. Velvet Duck	= *Oidemia deglandi*, Bp. 1850. White-winged Scoter.
9. *Scalopax gallinago* Linn. Snipe.	= *Gallingo delicata* (Ord.) 1825. Wilson's Snipe.
10. *Tringa pusilla* Linn. Little Sandpiper	= *Pisobia minutilla* (Vieill.) 1819. Least Sandpiper.
11. *Tringa alpina* Linn. Red-backed Sandpiper	= *Pelidna alpina sakhalina* (Vieill.) 1861. Red-backed Sandpiper.
12. *Tringa hiaticula* (Lath.) Ring Plover	= *Ægialitis semipalmata* Bp. Semipalmated Plover. 1825.
13. *Tringa hiaticula* Lath. Ringed Plover	= *Ægialitis meloda* (Ord) 1824. Piping Plover.
14. *Hæmatopus ostralegus* Gm. Pied Oystercatcher	= *Hæmatopus palliatus* Temm. American Oystercatcher. 1820
15. *Falco peregrinus* Gm. Great-footed Hawk	= *Falco peregrinus anatum* Duck Hawk. (Bp.) 1838.
16. *Strix flammea* Linn. White, or Barn Owl	= *Aluco pratincola* (Bp.) 1838. American Barn Owl.
17. *Strix otis* Linn. Long-eared Owl	= *Asio wilsonianus* (Less.) 1831. American Long-eared Owl.
18. *Corvus picus* Linn. Magpie	= *Pica pica hudsonia* (Sab.) American Magpie. 1823.
19. *Corvus corax* Linn. Raven	= *Corvus corax principalis*, Western Raven. Ridgw. 1887
20. *Corvus corone* Linn. Crow.	= *Corvus brachyrhynchos*, C. L. Brehm, 1822. American Crow.
21. *Sylvia troglodytes?* Linn. Winter Wren	= *Nannus hiemalis* (Vieill.) Winter Wren. 1819
22. *Certhia familiaris* Linn. Brown Creeper	= *Certhia familiaris americana* Brown Creeper. Bp. 1838.
23. *Sylvia regulus* Linn. Golden-crowned Wren	= *Regulus satrapa* Licht 1823. Golden-crowned Kinglet.

The following would have been antedated even had Wilson

separated them from the Old World species, which he did not do:

WILSON.	A. O. U. CHECK LIST.
1. *Anas fuligula* Linn.	= *Amythya collaris* (Donov.) 1809.
Tufted Duck	Ring-necked Duck.
2. *Anas hyperborea* Pall.	= *Chen hyperborea nivalis* (Forst.) 1772.
Snow Goose	Greater Snow Goose.
3. *Ardea nycticorax* Linn.	= *Nycticorax nycticorax naevius* (Bodd.) 1783.
Night Heron or Qua-bird	Black-crowned Night Heron.
4. *Falco lagopus* Brunn.	= *Archibuteo lagopus sanctijohannis* (Gm.) 1788.
Rough-legged Hawk	American Rough-legged Hawk.
5. *Falco haliaetus* Briss.	= *Pandion haliaetus carolinensis* Gm., 1788.
Fish Hawk, or Osprey	American Osprey.
6. *Strix hudsonia* Gm.	= *Surnia ulula caparoch* (Mull.)
Hawk Owl	American Hawk Owl. 1776
7. *Lanius exubiter* Linn.	= *Lanius borealis* Vieill., 1807.
Great American Shrike, or Butcherbird.	Northern Shrike.

The variations in plumage, particularly in the many species included in the families of *Scolopacidæ*, Snipes, Sandpipers, etc.; *Falconidæ*, Vultures, Hawks, Eagles, etc.; *Mniotiltidæ*, Wood Warblers; and *Turdidæ*, Thrushes, etc.; due to age, sex, season or dichromatism, were imperfectly understood at that time; therefore Wilson multiplied many of the species, not always without suspicion however.

WILSON.	A. O. U. CHECK LIST.
Tringa rufa Wils., Ad.	
Red-breasted Sandpiper	= *Tringa canutus*, Linn.
Tringa cinerea Brunn	Knot.
Ash-colored Sandpiper	
Tringa alpina Linn.	
Red-backed Sandpiper	= *Pelidna alpina sakhalina* (Vieil.)
Tringa cinclus Wils., Im.	
The Purre	Red-breasted Sandpiper.
Charadrius calidris Linn., Winter	
Sanderling Plover	= *Calidris arenaria* (Linn.)
Charadrius rubidus Gm., Summer	Sanderling.
Ruddy Plover	

WILSON.	A. O. U. CHECK LIST.
Falco velox Wils., Ad. Sharp-shinned Hawk *Falco pennsylvanicus* Wils. Im. Slate-colored Hawk.	= *Accipiter velox* (Wils.) Sharp-shinned Hawk.
Falco borealis Gm. Ad. Red-tailed Hawk *Falco leverianus* Gm. Im. American Buzzard or White-breasted Hawk.	= *Buteo borealis* (Gm.) Red-tailed Hawk.
Falco hyemalis Gm. Im. Winter Falcon *Falco lineatus* Gm. Ad. Red-shouldered Hawk	= *Buteo lineatus* (Gm.) Red-shouldered Hawk.
Falco lagopus Brunn. Rough-legged Falcon *Falco niger* Black Hawk	= *Archibuteo lagopus sanctijohannis* (Gm.) American Rough-legged Hawk.
Falco leucocaphalus Briss. Ad. White-headed or Bald Eagle *Falco ossifragus* Gm. Im. Sea Eagle	= *Haliaetus leucocephalus* Bald Eagle. (Linn.)
Strix nævia Gm. Grey phase Mottled Owl *Strix asio*, Red phase Red Owl	= *Otus asio* (Linn.) Screech Owl.
Sylvia canadensis Lath. Ad. Black-throated Blue Warbler *Sylvia pusilla* Wils. Im. Pine Swamp Warbler	= *Dendroica cærulescens* (Gmel.) Black-throated Blue Warbler.
Sylvia cerulea Wils. Ad. Cerulean Warbler *Sylvia rara* Wils. Female, Im. Blue-green Warbler	= *Dendroica cærulea* (Wils.) Cerulean Warbler.
Sylvia castana Wils. Ad. Bay-breasted Warbler *Sylvia autumnalcs* Wils. Im. Autumnal Warbler	= *Dendroica castanea* (Wils.) Bay-breasted Warbler.
Sylvia blackburnia, Gm. Ad. Blackburnian Warbler *Sylvia parus*, Wils. Female and im. Hemlock Warbler.	= *Dendroica fusca* (P. L. S. Muller.) Blackburnian Warbler.
Sylvia virens Gmel. Ad. Black-throated Green Warbler *Sylvia montana* Wils. Im. Blue Mountain Warbler	= *Dendroica virens* (Gmel.) Black-throated Green Warbler.

Wilson erroneously referred *Numenius hudsonicus* Lath. Hudsonian Curlew to *Scolopax (Numenius) borealis* Forst. Eskimo Curlew, an entirely different species; and an imma-

ture *Aquila chrysaetos* (Linn.) Golden Eagle, to *Falco fulvus* Linn. Ring-tail Eagle, which is a synonym of the former. In his index of the land birds, published in the preface of Volume VI, and covering the first seven volumes, *Falco niger* is recognized as a variety of *F. lagopus* (=*Archibuteo lagopus sancti-johannis* (Gmel.) American Rough-legged Hawk); also *Loxia rosea* Wils. corrected to *Loxia* (*Zamelodia*) *ludiviciana* Linn. Rose-breasted Grosbeak.

It is also to be observed that Wilson repeatedly bestowed upon two separate species, knowing them to be distinct, the same title; but this occurred during the last two or three years of his life when he was nearly engulfed in work, worry and ill health. Had he lived, he would undoubtedly have corrected many of his errors in the final index. Ord's attempts in this direction in a later "reprint" became confused with the original edition and caused some trouble later on. *Charadrius hiaticula* and *Tringa hiaticula* are undoubtedly homonyms, not only because they apply to distinct species of the same genus, but from the fact that both Bonaparte and Ord agree in the belief that *Tringa* was a typographical error.

WILSON.	A. O. U. CHECK LIST.
Charadrius hiaticula, Linn. Ringed Plover, pl. 37, fig. 3, v, 1812	= *Ægialitis meloda* (Ord.) Piping Plover.
Tringa hiaticula (Linn.) Ring Plover, pl. 59, fig. 3, viii, 1813	= *Ægialitis semipalmata* (Bp.) Semipalmated Plover.
Rallus virginianus, Linn. Rail, pl. 48, fig. 1, vi, 1812	= *Prozana carolina* (Linn.) Sora.
Rallus virginianus, Linn. Virginia Rail, pl. 62, fig. 1, vii, 1813	= *Rallus virginianus*, Linn. Virginia Rail.
Falco pennsylvanicus, Wils. Slate-colored Hawk, pl. 46, fig. 1, vi, 1812	= *Accipiter velox* (Wils.) Sharp-shinned Hawk.
Falco pennsylvanicus, Wils. Broad-winged Hawk, pl. 54, fig. 1, vi, 1812	= *Buteo platypterus* (Vieill.) Broad-winged Hawk.
Sylvia pusilla Blue Yellow-backed Warbler, pl. 28, f. 3, iii, 1811	= *Compsothlypis americana* (Linn.) Parula Warbler.
Sylvia pusilla Pine Swamp Warbler, pl. 43, f. 4, v, 1813	= *Dendroica cærulescens* (Gmel.) Black-throated Blue Warbler.

Wilson's Black-capped Warbler received the name of *Muscicapa pusilla* also; in fact *pusilla, minuta, carolinensis, melodia, rufa,* and a few others, seem to have been favorite specific terms with him. *Sylvia minuta* Prairie Warbler, was antedated by *Dendroica discolor* (Vieill.); and *Muscicapa minuta* (another Warbler presumably), preoccupied. Mislead by Bartram, the Snowbird (Slate-colored Junco) which he called *Fringilla nivalis,* had been for a time confused with *Emberiza* (*Plectrophanax*) *nivalis* Snow Bunting, but the former was changed to *F. hudsonia* in the index, Vol. VI. Wilson's specific names were mainly descriptive, and for that reason it is regrettable that more of them are not available. Personal appellation though not a novelty, had not come into vogue until the time of Bonaparte and Audubon. One can admire the sturdy independence of Wilson in this respect. One species only, which he confidently thought new, did he name in honor of a friend and patron of science; *Tringa bartramia* Bartram's Sandpiper, and this proves to be antedated one year by Bechstein's *T. longicauda;* Lesson, however, in 1831 has placed it in a separate genus, which he calls *Bartramia,* hence we have after all, *Bartramia longicauda* Bartramian Sandpiper.

Wilson's lack of enthusiasm in the construction and application of technical names, lead Bonaparte to publish his Observations on the Nomenclature of Wilson's Ornithology,[1] in which eight species are renamed, three in honor of the author, none of which stand; *Falco wilsoni* (=*Buteo platypterus*), *Sylvia wilsonii* (=*Sylvania* (?) *microcephala*)' and *Turdus wilsonii* (=*Turdus fuscescens*). Of this paper, which was read by the author in installments at the Academy meetings, Coues has commented as follows: "A critical commentary on 227 of Wilson's species, *seriatim,* and as such, one of the most notable and in some respects the most important of early American papers." And again: "This valuable critical commentary introduced a new feature—decided change in nomenclature from the sifting and rectification of

[1] Jour. Acad. Nat. Sci. Phila. III-V, 1824-25.

synonymy. It is here that questions of synonymy—today the bane and drudgery of the working naturalist—first acquire prominence in the history of our special subject. There had been very little of it before, and Wilson himself, the least 'bookish' of men, gave it scarcely any attention." [2]

In his paper Bonaparte remarks: "Wilson, though one of the most acute and accurate of Ornithologists, one who has rendered the greatest services to science, by describing, in his attactive style, the manners and habits of American birds, and who has corrected so many errors of former writers, has nevertheless, unavoidably committed some himself, principally of nomenclature, which are, in a great measure, attributable to a want of the necessary books and opportunities of comparison. So far, therefore, from being censurable for these errors, we are surprised that he has not committed more. . . . I do not consider myself censurable for the frequent repetition of the name of this great ornithologist, as applied to species in different genera; it is a tribute of respect which I conceive justly due to one who has done so much for the benefit of my favorite science."

It is scarcely within the province of a biographer to follow the tortuous channels of thought and research, whereby Bonaparte and Ord attempted the correction of Wilson's errors in nomenclature; nor is it surprising that so few of the terms as then constructed, are in use today. Wilson erroneously placed the Whooping Crane with the Heron; the Chimney Swift with the Swallow; the American Redstart, Hooded, Canadian, Black-capped and Small-headed Warblers, the Vireo and the Blue-gray Gnatcatcher, with the Flycatchers; the Bluebird, the Kinglets, House and Winter Wren, with the Wood Warblers; the Yellow-breasted Chat with the Manakins; the Black and White Warbler, Carolina and Long-billed Marsh Wrens, with the Creepers; and the Oven-bird and Water-thrush with the Thrushes. In most instances he followed his predecessors, or at least one of

[2] Bibliographical Appendix, Birds of the Colorado Valley, 1878, p. 608.

them, in error; *Pipra polyglotta,* however, was an unhappy classification exclusively his own, about on a par with some previous works, where the Chat has been variously placed with the Flycatchers, Tanagers or Chatterers. On the other hand he straightened out the tangle in which European writers had involved the two Eastern Orioles; Bonaparte has declared that no species of birds had occasioned so many errors, and so great a multiplication of nominal species. His knowledge of the Sparrows and Warblers was really wonderfully full for that time. Unquestionably, Dr. Shufeldt did not intend to create a wrong impression when he wrote: "In summing it up then, it will be seen that Wilson knew of but thirty species of birds that belong to the family *Fringillidæ,* while in our Check List of 1895 the same family is represented by no fewer than eighty-nine species and seventy-four subspecies—163 birds in all."[1] One of our best authorities has found that there are only thirty-six forms recognized today in the section of the country covered by Wilson.

According to Coues, Wilson gave faithful descriptions of about 280 species, and colored illustrations of most of them, —78 indicated as new according to his Bibliographical list; Ord calculated 278 species, following Wilson's catalogue, 56 being new; Bonaparte places the total number at 270 species; and Baird, 257 species, not including *Melangо gallopavo* Wild Turkey, and *Gracula barita* Boat-tailed Grackle, mentioned in the index of volume vi. The whole number of birds figured is 320. Actual number of species both figured and described is 262, making a total of 268 species made known by their figure or description, or both; excluding the three species figured but not separately distinguished, 39 were new; and adding to this number the 23 species and subspecies which he probably described sufficiently to differentiate from the European, though he did not give them new names, gives a total of 62 newly described species and subspecies. When one realizes that Europe had been drawing

[1] American Sparrows and Their Kin, Shooting and Fishing, XXI, 1897, pp. 307-308.

from the region of his researches for many years, it will be seen that this is a wonderful showing in comparison to the really small grand total; and more extraordinary still, all of his birds are identifiable at the present time, except a single species. His English names have always been popular, and the majority of them are very appropriate, acceptable with occasional modifications through all these years, without fixed rule or reason.

But the correct delineation of several hundred species of birds nor the exposition of a few score of nondescripts, do not begin to express the services of Alexander Wilson to American Ornithology. His work was far more than a mere descriptive and illustrated catalogue of the birds he had found. He ennobled science and literature without sacrificing that charming simplicity of expression which reached and educated the people as few works of like nature have done. Ornithology cannot begin to measure his services in creating the proper sentiment in this country. "No other work on American ornithology has been so much talked and written about as this; and the time for comment on its character is long gone by. The 'melancholy poet-naturalist' occupies a place as changeless as the hills, and wholly peculiar. He stands toward American ornithologists in a position corresponding somewhat to that which is occupied in England by White of Selbourne, in Germany by Bechstein, and I will add, among anglers by Izack Walton."[1]

In later complimentary honors, Wilson has not fared so badly. One genus, *Wilsonia* Bonaparte, was created in 1838, and has been recently revived. Of the thirteen or more specific terms named in honor of Wilson, two survive—*Ochthodromus wilsonia* (Ord) Wilson's Plover, and *Asio wilsonianus* (Lesson) American Long-eared Owl. In the vernacular names he has fared still better:—Wilson's Petral *Oceanites oceanicus*, Wilson's Phalarope *Steganopus tricolor*, Wilson's Snipe *Gallinago delicata*, Wilson's Warbler *Wilsonia pusilla*, and Wilson's Thrush *Turdus fuscescens*.

[1] Coues, Birds of Colorado Valley, p. 600.

Additional evidence of the thoroughness of the Ornithologist can be found in his constant reference in his work to carefully numbered specimens placed in Peale's museum. Without the facilities or inclination for personal hoarding, he had every right to suppose that the birds he looked upon as his types, would be carefully preserved for a practically indefinite period in the public museums of his adopted city or country; that they were not is neither creditable to Philadelphia or the country at large.

SUMMER BIRDS OF THE SOUTHERN EDGE OF WESTERN ONTARIO.

W. E. SAUNDERS.

On June 6, 1909, Mr. J. S. Wallace, of Toronto, began with me a walk of exploration along the southern edge of Western Ontario. We left Amherstburg, at the southwestern corner of the province, at day break, and on the 10th, the walk ended at Blenheim about fifty miles further east. The object of the trip was to ascertain whether certain southern forms which breed in moderate numbers on Point Pelee, extended through the country near by.

The species sought were, the Chat, Cardinal, Carolina Wren, and Bewik's Wren. We were successful in finding the first three, and although their numbers were small, yet the distribution was wide enough to convince us that the Chat and the Carolina Wren at least were regular breeders through a considerable portion of the territory covered. In addition to these, we found the Dickcissel near the east end of the journey where two males were in full song in one field, but we failed to find any trace whatever of the Lark or the Henslow's Sparrows, both of which were expected.

The taking of the first specimens of the Acadian Flycatcher for Canada fully counterbalanced any disappointment we may have felt at missing the species mentioned and brought the trip to a very successful close.

A walking trip has certain advantages in the way of freedom of movement over any other method of locomotion that may be adopted, but of course progress is slow. One should not exceed 8 or 10 miles of woods and fields in the course of a day and any additional distance had to be covered on road or railroad track, but in the nesting season when the birds are in full song, one's ears enable him to cover the ground within ear shot with a fair degree of thoroughness, even though he may keep walking all the time. After leaving the southwest corner of the peninsula, we had proceeded only three or four miles before we heard a Carolina Wren;

this bird had already been noticed in summer at two or three other localities in Ontario in other years, and one was heard singing near London on June 5, 1909, and may possibly be nesting there. Another of this species was heard about three miles from the east base of Point Pelee, which strengthens the conviction that they are to be found more commonly near the base of the Point than elsewhere on the mainland.

At six miles southeast of Amherstburg we located another Chat, in fact we heard two at once, but the note of the second one was so peculiar that it necessitated special investigation to determine the author. The first one was accompanied by its mate and they were doubtless nesting in the scrub at that point. These birds are rather rare on Point Pelee and we were not very confident of finding them on the mainland, but at Renwick, about forty miles farther east another one was noted in a somewhat similar location, where it was doubtless nesting.

Another note of interest was the discovery of a breeding ground of the Piping Plover. About six or eight pairs of these birds were scattered along the lake shore beside the marsh near the mouth of the big creek a few miles from the Detroit River. One nest was found with four nearly hatched eggs and the other birds were manifestly concerned at our presence. Favorable nesting grounds for these birds are not to be found very often. The others reported so far for the north shore of Lake Erie are Point Pelee, the Rond Eau sand bar and the Long Point. It is to be doubted if there are more than two or three other localities at which these birds are found in the nesting season, while on Lake Ontario the Toronto island is the only point that I know of where the species nests.

The Savannah Sparrow which is an abundant bird at London was rare throughout all the territory covered and was everywhere outnumbered by the Grasshopper Sparrow of which we recorded as many as 10 in one day.

The Rough-winged Swallow was noted in two places, single birds only, the other being doubtless on the nest. As

this bird requires the face of a sand bank beside the water for nesting, it was quite a surprise to find even two, as the country is almost exclusively clay. A colony of bank swallows was found near Blenheim in a pit, but no Rough-wings could be found among them. The Short-billed Marsh Wren was noticed at only one point where a male was singing. It was immediately beneath an Eagles' nest, which we did not care to disturb and therefore did not spend much time with the wren as the eagle was very much concerned at our presence near its young, which could be seen when one was not too close to the nest. The Cardinal was expected perhaps more confidently than any other of the birds sought owing to its comparative abundance on Point Pelee, but it was not until the last day within two miles of Ridgetown that one was heard whistling from a treetop by the road-side.

The Dickcissel was formerly common throughout Western Ontario at almost every point that I had the opportunity of visiting, but during the last ten years they have vanished almost completely, and no trip had disclosed any of them in the last five years. One or two years ago Dr. Walker reported that he believed he had found a pair near Ridgetown, but I was unable to visit the locality to confirm the record. It was therefore a great satisfaction to find two males singing in a field near Blenheim, and as their song is so easily recognized and has such good carrying power, it seems as though they must be very rare indeed through the territory travelled. It may be that we are about to see them become more common again as is the custom with very many of our birds. In fact I have been surprised in recent years to see what a large number of the less common birds show great differences in their numbers from year to year.

An interesting Black Tern was seen near the west end of our walk. It was one which had carried over the young plumage to the present year and as nearly as we could tell, the colors were as usual, but the bird was flying around with a lot of normal plumaged adults, who were evidently concerned at our near approach and were doubtless nesting.

The Green Heron is found rather commonly in many parts of Western Ontario and appears to be spreading, but on this walk, we saw only three and those all on the first day. It is true that during that day we passed through more wet lands than in the latter part of the trip, but we were constantly near a good deal of suitable ground where these birds were not seen.

Tree Swallows were also common on the first day, but after that not one was observed. These birds have become practically extinct in the London district within ten years, while in the more distant past they were quite common, nesting in fair numbers even in the business parts of the city of London, but while our Martins have apparently held their own, the Tree Swallows have vanished.

When passing through a piece of woods about forty miles east of the Detroit River, I saw a Hummingbird doing the Pendulum Play. After two or three oscillations in front of a shrub he flew through it and chased out his mate, she lit very close by and he immediately began again, swung ten times and then vanished.

FIVE NOTES FROM THE UPPER MISSISSIPPI VALLEY.

ALTHEA R. SHERMAN.

KING RAIL, *Rallus elegans*. The conduct of one of this species, that visited our yard during the forenoon of April 15th, was out of the ordinary. The ground everywhere had been made very muddy by a heavy rain on the previous day. At 7:45 o'clock the King Rail was first seen walking in the middle of the street. Having traveled to the northern limit of the yard, it turned and came under the fence into the enclosure; leisurely examining the ground, it passed within six feet of the house and walked out through the front gate, that chanced to stand open. In a similar manner it spent the next four hours, cover-

ing about three acres of a hillside, in its search for food. A portion of the time it spent among the raspberry bushes, the rest of the time it was moving about through the orchard and pasture with all the fearlessness and unconcern of a chicken that was in its own home.

NORTHERN PILEATED WOODPECKER, *Phlœotomus pileatus abieticola*.—This species cannot be very rare in this vicinity since at least a half dozen of my neighbors have told me that they had seen it in the woods in recent years. This has happened usually in the winter when they were cutting wood. I had the good fortune to see one on June 15 as it sat for several minutes on a dead limb about fifty yards away.

RED-BELLIED WOODPECKER, *Centurus carolinus*.—On April 16th while on a farm near Steuben, Wisconsin, I saw a Red-bellied Woodpecker come to get its breakfast of corn from ears that were hung on the frame of the wind-mill as food for the birds. The owner of the place said that it had been a regular boarder all winter. This place must be near the northern limit of the range of this species. It is thus given in "The Birds of Wisconsin" by Kumlien and Hollister.

CARDINAL, *Cardinalis cardinalis*.—In the Wilson Bulletin for June, 1908, I reported having seen in the previous April a pair of Cardinals at the mouth of Sny Magill Creek. So far as known these were the first of this species to be identifield in this county. Late in December, 1908, the family of Mrs. M. A. Jordan, of McGregor, Iowa, was startled one morning by a rare and radiant vision, that of a brilliantly colored Cardinal standing in the freshly fallen snow near the lunch table spread for the birds. He soon became a regular boarder, fighting the English Sparrows that stole the corn he had cracked, and showing fear of the Blue Jays. His roosting place was discovered to be in a clump of evergreens a few rods away. He continued to come for food until the early days of April. Mrs. Jordan, who has resided in McGregor for more than fifty years, is confident that this was

the first Cardinal to visit that place. This is corroborated by other old time residents. The village of McGregor is situated on the banks of the Mississippi River, six miles north of the spot where I found the pair in April, 1908.

There are other instances of the northern advance of this species in this locality. In Wisconsin, almost due east from McGregor, lie the villages of Blue River and Boscobel on the banks of the Wisconsin River. In the former place a pair of Cardinals spent last winter, (the first of the species ever seen in that region,) and in the latter place about the middle of March a male Cardinal was seen by my informant, who has known the species in the south. All of these places are north of latitude 43 degrees and their winter temperature is considerably colder than that of Boston in whose neighborhood the advent of the Cardinal has awakened much interest.

A WET ACRE.—May 5 was a day of unusual interest. At 11:00 a. m. the temperature was 82 degrees in the shade, and there lay in sight the remnant of a snow-bank, the last of our May-day snow storm. Migrating birds came in large numbers. Just beyond the edge of our back lots lies a wet meadow, scarcely an acre in extent. Here on that day, partly screened by a fence, one could see at one time two Wilson Phalaropes, four Least Sandpipers, one Greater Yellow-legs, twenty-two Yellow-legs, three Killdeers, and one Golden Plover, all distant less than ten rods, while a little outside of this limit was a flock of Blackbirds numbering upwards of a hundred; they were mostly Red-wings with a few Rusty Blackbirds and Bronzed Grackles. Near the Blackbirds were seen a Savanna Sparrow and a Prairie Long-billed Marsh Wren. Following day brought to this small area, the Rails, Virginia and Sora, Solitary Sandpipers and a Florida Gallinule. The Gallinule was crippled in one foot, a like misfortune had befallen a Yellow-legs that remained here several days as did the Gallinule. The Wilson Phalaropes appeared to be mates, and one of them had an injured leg. They were in the neighborhood six days. Their light plumage was so conspicuous

against the dark earth that one grew curious as to the place chosen by them for spending the night. On one night this was found to be in the only running water the meadow offered, a shallow rivulet scarcely four feet wide. Standing in this water their color was completely obliterated in its light shining surface that reflected the sky.

NEW RECORDS FOR MIDDLE NORTHERN OHIO

LYNDS JONES.

BACHMAN'S SPARROW, *Peucaea aestivalis bachmanii.* — On May 14, 1909, on an all day trip to Cedar Point, a male in full song was found a quarter of a mile east of the Lake Laboratory. The bird was perched on a telephone wire near where the line enters the sand spit, singing lustily. It stopped only to fly to the ground to feed, then mounted to the wire again by way of bushes which were growing in the center of an old sand 'blow-out' which is now covered with grass. The bird permitted an approach within fifteen feet, showing no concern at the intrusion. Again on the 17th, the bird was found again at the same place, singing as lustily as before. If I mistake not this is the farthest north record for this species.

BEWICK'S WREN, *Thryomanes bewickii.*—On May 22, 1909, while on an all day bird tramp with Rev. W. L. Dawson, he called my attention to a singing bird of this species in the village of Berlin Heights. There was no mistaking the song. The presence of this wren has been suspected near Oberlin on three occasions, but in the absence of song and without specimens it has not been accredited to this region until now.

The presence of these two species tends to corroborate my statements that there is a decided northward movement of the bird fauna over Ohio.

NOTES ON THE "OSTEOLOGY OF BIRDS:"—Under the title of *Osteology of Birds* the New York State Museum published for the writer a volume, with many Plates and Figures, in which the *Accipitres*, the *Gallinæ*, the *Anseres*, and certain *Coccyges* were very fully treated. It appeared last spring, and has been very favorably received by ornithologists, especially in Europe, where a greater attention is paid to such subjects than in this country. In this work, up to date, my attention has been called but to two points demanding correction or comment from me. Professor E. Regalia, of Genoa, Italy, has shown that an error has evidently been made in the length given for the *tibio-tarsus* in *Branta canadensis*, which is stated to be in my book 7.3 centimetres, or the same that is given for the *femur* in the same specimen. He has a skeleton of that goose in his own collection, wherein he states the *tibio-tarsus* has a length of 164 millimeters, and doubtless this is correct, the latter bone being more than double the length of the *femur* (p. 328). This error probably occurred by my quoting the same measurement I had made for the thigh-bone for the bone of the leg, and evidently overlooking the correct measurement made of the latter, both being before me at the same time. Professor Regalia is entitled to my thanks for having pointed out this slip.

The distinguished Italian ornithologist Count Tommaso Salvadori of the Royal Museum of Zoölogy of Turin, Italy, writes me under date of June 26, 1909, as follows: "As regards the classification of the *Anseres* you have not mentioned the one I proposed in Vol. xxvii of the Catalogue of Birds. I have there introduced a new subfamily, the *Chenonettinæ* (page viii, 128) the members of which have the external appearance of Geese, but the males have a larnyx furnished with a *bulla ossea* as in *Anatinæ*. My scheme may be endorsed from what you say about the skull of *Chlocphaga poliocephala* which, according to you, differs considerably from the skull of *Bernicla* or *Branta* and rather seems to slightly approach the skull of some of the Ducks in certain characters. The subject appears worthy of being considered."

Count Salvadori is undoubtedly correct in this matter, and if the present writer ever publishes another classification of Birds his subfamily *Chenonettinæ* will most assuredly be recognized. The opportunity has never been mine to examine more than the skull in *Chloëphaga,* and had the fact been known to me that the males in that species possessed a bony labyrinth at the pulmonic extremity of the trachea, a subfamily would surely have been created to include them. It is evidently a clear case of *lapsus memoriæ* on my part that this had already been done in the *Catalogue of Birds* by Count Salvadori in his scheme of classification of Birds.

R. W. SHUFELDT.

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EDITORIAL.

Lack of necessary material for making the desired pictures has resulted in necessary postponement of the second paper on the Falcones until the December issue. Specimens of some of the rarer forms are not easy to secure.

The editor would like to get into communication with persons who have ready access to the breeding places of wild ducks. Any information which will lead to his securing fresh eggs suitable for hatching or ducklings will be thankfully received. Only eggs or ducklings taken in the wild are desired.

This is the season when a sharp lookout should be kept for the departure of our nesting birds for their winter homes. Many of the birds are so seclusive that it is difficult to find them in their retreats. There is hardly a species whose time of departure southward is known with sufficient accuracy. Some leave their nesting places to gather in companies elsewhere in the region, delaying their departure for a considerable time. Which species are they?

Do most of the song birds have an autumn period of song after the completion of the molt? Among the autumn singers is flight song frequent, or does it occur at all? Are the autumn singers

adults with unusual vigor or birds of the year? Is the autumn song period ever accompanied by a period of mating phenomena? These and other questions relating to the same subject are questions well worth careful study. It is entirely possible that their careful consideration might throw light on other phases of bird life.

FIELD NOTES.

ILLINOIS NOTES.—The Cardinal (*C. cardinalis*) at Glen Ellyn. It is with pleasure that I am enabled at last to add the Cardinal to our local list. For years it has been known to nest in the county and is now regularly found at points in the adjoining county of Cook to the eastward; so, that so far as northeastern Illinois is considered, the northward movement of this species is a well-settled fact.

Possibly it may have occurred here sooner, for what has been described to me as seen by others was unquestionably this bird. Still, for the writer, its status has remained undertermined until recently, when on the 15th of August last the cheery notes of the male bird were heard in our woods for the first time. On the day following they were heard again, soon after which the author of same must have disappeared. Of the Cardinal's song I feel absolutely sure, and believe there can be no doubt as to the correctness of this record.

THE CAROLINA WREN (*Thryothorus ludovicianus*) AT HENNEPIN.—The expansion or northward extension of the range of the Cardinal has been attended it seems by a like one on the part of other species as well; for example, here in Illinois we may mention the Carolina Wren and Bell's Vireo, the latter having been found nesting at Joliet.

There is a possibility also of a similar movement on the part of Bewick's Wren, while the facts concerning *T. ludovicianus* have been noticed in other parts of the country.

Writing to me under date of April 21, 1909, our fellow member, Hon. R. M. Barnes, of Lacon, Marshall County, this State, has this to say, in relation to the latter:

"Yesterday at Hennepin, twenty-one miles north of here, I made a discovery which was entirely new. I saw sitting in the yard adjoining the public park and also adjoining the business part of the town, an adult Carolina Wren, and made a very careful investigation of the singer—stayed with him at least a half an hour. I have never seen the bird before in the State of Illinois."

It may be of interest to state in this connection that Ellen Drummond Farwell has recorded in "The Auk" (Vol. XIX, p. 209) the

occurrence of the Carolina Wren for two consecutive seasons at Lake Forest, Lake County, in the extreme northeast corner of the state; and more recently, the past season, the bird has been reported as nesting at Worth in Cook County, not far from the big metropolis on the Lake—Chicago.

Glen Ellyn, Ill. BENJ. T. GAULT.

A Bohemian Waxwing (*Ampelis garrulus*) in Ohio.—Dawson says of this bird that there are no Ohio records for many years. Perhaps he bases this on Wheaton's similar statement. In view of this I think it may be of interest to record the following facts.. Two ladies of our household, both bird students, saw and heard, on February 23, a Bohemian Waxwing. It came into the yard near enough to the house for a close observation, so the distinguishing characteristics were well noted. They believe, after hearing its note, that one of them had been about on the Sunday previous. [A few weeks before a small flock of Cedar Waxwings came into a honeysuckle vine by our porch and were about for a short time.]

Judge Metcalfe, of this place, says that a few years ago a number of Bohemian Waxwings were about for several days.

ORANGE COOK.

Chardon, Ohio, April 17, 1909.

The Black-crowned Night Heron in Ohio.—In his "THE BIRDS OF OHIO," W. L. Dawson gives the range in Ohio of the Black-crowned Night Heron (*Nycticorax nycticorax nævius*, Bodd.) as a "Not common resident and migrant. Of local appearance only." I wish to call attention to a restricted locality where it has been seen in considerable numbers. It is along the Great Miami River, near Troy, Miami County, Ohio. The place it most frequents is about two miles southeast of Troy, and is known as Long Pond. This Long Pond is probably an ox-bow loop formation. Immediately below this is a low island which is very difficultly accessible. This whole vicinity is rather secluded, and forms an ideal place for these birds.

Two adults were seen here in September, 1905. An immature female was killed near here on Octiber 11, 1905, by W. A. Haines. It was mounted, and is now in the Troy High School taxidermy collection. About twenty-five birds, mostly immature, were seen here at one time in August, 1906. An immature female was killed here on August 24, 1906, by Raymond Boller. It was mounted, and is now in the collection in the Sidney, Ohio, Public Library. An adult specimen was taken near here in the autumn of 1907. It was mounted, and is now in the Troy High School collection. Other specimens were taken, but these will suffice.

Sidney, Ohio. G. CLYDE FISHER.